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ABSTRACT

As the first step of the process of developing a strategic plan, the Institutional Research Director at Columbia Basin College (Washington) was asked to perform an environmental scan. Environmental scanning is a careful and continuous process of tracking and analyzing trends relevant to an institution's goals. It involves making forecasts of changes and assessing their impact on the institution's capacity to achieve its mission. Interest groups were formed to research topics important to the future of the college. Additionally, 65 community leaders, including members of business, national, state, and locally elected officials, members of the health care community, and social services agencies, were interviewed. After all the information had been gathered and analyzed at the global, national, state, and local levels, "core" external trends were developed. These 19 trends include a decline in government funding coupled with an increasing demand for accountability, increasing need for ESL programs and literacy services, diversification of businesses in the Tri-Cities and increasing market value associated with skill certification over college degrees, new technology for interaction between students and faculty, and competition in distance education along with a need for associated services. The next section of the report presents trends and findings for 10 areas of interest, such as finance, literacy, and economic development. Economic factors are addressed in the next section, followed by input from four vocational program advisory committees. The report concludes with a "futurist's" look at higher education in 2025. (Contains over 65 references.) (JA)

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Focus on the Future: Environmental Scanning at Columbia Basin College.

Judi Knutzen, Compiler

J. Knutzen

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FOCUS ON THE FUTURE

ENVIRONMENTAL SCANNING AT COLUMBIA BASIN COLLEGE

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ENVIRONMENTAL SCANNING AT

COLUMBIA BASIN COLLEGE

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April 2000

FOCUS ON THE FUTURE

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Technology Interest Group

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Elected Officials –National and State

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Nancy Kyles, Assistant Superintendent, Richland School District
Paul Rosier, Superintendent, Kennewick School District

Arts in the Tri-Cities

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Nancy Doran, Camerata Board Member
John and Nancy Garing, Camerata Board Members
John Hubbe, Camerata Board Member
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Artis Vaughan, Arts Center Task Force
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This report is a compilation of the project participants' ideas and opinions regarding issues of importance to the college.

FOCUS ON THE FUTURE

ENVIRONMENTAL SCANNING AT COLUMBIA BASIN COLLEGE: ITS ROLES AND CONTEXT

The outward-looking character of strategic planning takes into account a growing awareness and significance of the outside environment…This growing awareness of the outside environment is the single most important contribution of strategic planning to institutional decision-making, and ¾ of all change at most institutions is "now triggered by outside factors."

George Keller, 1983

Introduction

Environmental scanning is a careful and continuous process of tracking and analyzing trends relevant to an institution's goals. It involves making forecasts of changes and assessing their direct and indirect impact on the institution's capacity to achieve its mission.

Scanning is most often conducted to support the strategic planning process. An assessment of the external environment in terms of opportunities and threats is an essential element in this process. The Harvard Policy Model organizes its central theme around "SWOT" analysis (Strengths, Weaknesses, Opportunities, and Threats). Under this model, the organization/college systematically assesses internal strengths and weaknesses and external opportunities and threats. Environmental factors are usually considered an opportunity or threat depending on their positive or negative effect on the organization.

At CBC, an institutional level assessment process includes monitoring the external environment (inputs), the college end states developed from its mission statement (throughput), and accountability, such as value-added learning (outputs). Please see the Strategic Planning Model Chart that follows page 11. Another chart follows page 11 that depicts the strategic planning process end statement reporting that places the external and internal research at the beginning of the strategic planning process.

Methodology

CBC began the process of developing a strategic plan in the fall of 1999. As the first step of that process, the Institutional Research Director was asked to perform an environmental scan. The process used was recommended by experts in the field as being the most effective way to bring as many people into the process as possible with the goal of developing an outward-looking framework of awareness by those who participated in the scanning project.

Interest groups were formed to research topics and areas important to the future of the college. Chairs of the groups were recruited and an invitation was extended to all faculty, staff, and administrators to participate in an Area of Interest where they either had existing expertise or a desire to know more about the topic. There were ten interest groups with a total of thirty-seven members. The groups participated in an orientation session given by the Director of Institutional Research on what environmental scanning was and how it was to be accomplished at CBC. In addition, research methods, computer links, and written sources were established for their convenience. Steven Badalamente, CBC Librarian, provided individual sessions on research methods and developed computer links and library resources for the interest groups.

A scanning abstract form was developed for the interest groups that provided an organized approach to information keeping. Information has continued to be submitted after the project was officially completed because interest group members say they continue to be more aware of issues and events that might affect CBC. They want to pass on that information to those who can benefit.

As a kickoff to the project, Earl Hale, Executive Director of the State Board for Community and Technical Colleges came to CBC from Olympia to relate his thoughts on the future of community colleges in Washington. He gave an overview of the upcoming legislative session and what it could mean to CBC and higher education in general.

An integral part of the scanning project was to talk to experts in the community. This was accomplished by interviewing community leaders. Those interviewed were members of business and industry, national and state elected officials, locally elected officials, members of the health care community, social service agencies, K-12 school administrators, members of the local arts community and professionals who work with literacy issues. Eleven CBC faculty, staff, and administrators interviewed 65 community leaders over an eight-week period. A letter from CBC's President, Dr. Thornton, began the interview process and college personnel followed up with a phone call to make an appointment at the community representative's convenience. Most often, the interviews took place in the interviewee's office. All who did the interviewing related how much they had learned from those they interviewed. It was a wonderful opportunity to gain information followed by an opportunity to share information about CBC with the local community.

Vocational Advisory Committees made up of volunteer community members who advise a particular vocational program were included in the interview process through their regular meetings. They participated in focus group sessions led by the Director of Institutional Research designed to gain from the committee member's unique perspective what was happening in the Tri-Cities that could affect CBC in the next 3-5 years. There were four advisory committees who participated over a three-month period. All the groups expressed their thanks in being included in the project. They felt being included was a confirmation of their importance to the college programs they serve.

The project culminated with a public forum where all who participated came together to relate what they learned to those invited which included faculty, staff, and administrators, community leaders who were interviewed, and others who have indicated an interest in the findings of the project. This publication, Focus on the Future: Environmental Scanning at CBC, was distributed to the college community and all others who participated in the project.

Core External Trends

After all the information had been gathered and analyzed at the global, national, state, and local levels by the research teams, core external trends were developed. The "core" trends are those that have the most potential for impact on the college and are the most likely to continue. They are a distillation of the information provided by the researchers and interviewers and will be used by the college in determining strategic directions.

CORE EXTERNAL ENVIRONMENTAL TRENDS

COLUMBIA BASIN COLLEGE

Financial Trends

- There will be a continued decline in funding for higher education from the State and Federal levels coupled with an increased demand for accountability in how the funds are used.
- The cost of higher education will continue to be shifted from the responsibility of federal and state legislatures to the student through higher tuition.
- More financial aid will be directed to the middle class through programs such as the Hope Scholarship and tax credits.

Sociological and Demographic Trends

- The local population will be increasingly older with an increasing number of retirees.
- Increased need for ESL programs will continue as the number of refugees and immigrants increases.
- There will continue to be a marked increase in the need for literacy services at all levels--national, state and local.
- Through increased immigration, less skilled workers will be arriving in the Tri-Cities.

- Colleges will enroll increasing numbers of students requiring remedial and developmental work.

- Students will be increasingly affected by various social problems (welfare reform, poverty, single-parent families, disabilities, illiteracy, etc.).

- College populations will become younger with an increasing number of traditionally aged students enrolling in higher education directly from high school and through Running Start.

Economic and Workforce Trends

- The Tri-Cities' economic health report is increasingly optimistic with a continued move towards diversification of businesses and away from a Hanford-dominated economy.

- A bimodal economy is rapidly developing in the Tri-Cities with agriculture on one side (relatively low wages but increasingly large numbers employed) and with Hanford on the other side of the scale (fewer numbers employed accompanied by higher wages).

- Employment will continue to be high and worker productivity will continue to increase.

- There will be increasing market value associated with skill certification (by professional groups) over degrees awarded by colleges.

- Employers and consumers will have higher expectations of a worker's skills, abilities and aptitudes, accompanied by a shift to more self-directed work teams, lifelong learning, creative thinking and problem solving.

- There will be increased pressure by employers for technological skills for employees at all levels with increased need for continued upgrading of skills throughout a worker's career.

- For-profit providers who do not adhere to traditional systems or boundaries will increasingly carry out education and training.

Technology Trends

- New technologies now allow, and students and faculty demand, new ways of interacting.

- Increased competition will be brought to distance education along with a need for associated services.

AREAS OF INTEREST: TRENDS AND FINDINGS

AREAS OF INTEREST: TRENDS AND FINDINGS

Scanning at CBC

Interest Areas were chosen for the CBC environmental scan that are universal in nature, yet seen as having the potential to directly affect the college locally. The Areas of Interest included:

Educational Partners	Educational Costs
State and Federal Mandates	Workforce Training/Retraining
Economic Development	Unemployment
Local Demographics	Technology
Community Literacy	Funding

Teams were formed around each of the interest areas and research began in December 1999. Following are research reports on the Areas of Interest that include trends and major findings.

Educational Partners (K-12 and Universities)

Members: Pat Campbell, Laurie McQuay-Peninger, Nancy Roe, Pat Wright (WSU) and Lynda Meyers, Chair

Trends

- Technology will increasingly impact traditional learning and service environments.
- For-profit organizations will continue to increase inroads into K-12 and higher education.
- Ethnicity and demographics will increasingly impact curriculum, staff, students, and services – all aspects of education.
- Running Start, as we now know it, may be changed by the Certificate of Mastery – most likely increasing the numbers of students coming to CBC at an earlier age.
- Partnerships with K-12 and baccalaureate institutions will increase.
- Partnerships with businesses will increase.

- Increased interest by the baccalaureate institutions for community college students will benefit community college students.

- Student Services will be changing their model of delivery by using more technology.

- Higher education at the university level in the Tri-Cities will shift from engineering and science to agriculture, education and technology-based programs.

- WSU-Tri-Cities enrollment will continue to be lower than desired until the Baby Boom Echo students begin to push through the system, beginning in 2000; enrollment will then begin to slowly increase at both CBC and WSU.

- Graduate programs will continue to decline in enrollment across the nation and here in the Tri-Cities.

Findings

K-12

- The number of home-schooled students will continue to increase

- More students are taking math and science courses in K-12.

- The Baby Boom Echo will increase the number of students arriving at CBC directly from high school.

- An increasing number of high school students report being bored in their junior and senior year in high school and come to the college as disengaged students. They also report studying less than 3 hours per week as seniors (information is based on a recent American Council on Education survey of college freshmen – a UCLA-sponsored study).

- There is an increasing gap between what high school students learn and what they need to know to succeed in the work place.

- There is an increasing gap between what high school students learn and what they need to know to be successful in higher education.

- There is an increasing gap between high school requirements for graduation and college entrance requirements.

- The demand for after-school childcare for K-12 students will increase.

- Public schools will lose market share to private or charter schools.

- K-12 schools are becoming the hub for social services provided in the community.

- More high school/middle school outreach efforts are needed and desired.

Community Colleges

- Community colleges are losing out to proprietary schools.

- There will be an increase in the number of disabled students coming to CBC and a corresponding increase in costs of services to the disabled.

- Assessment is here to stay. Student outcomes are necessary. We need to focus on the "why" questions in what we do.

- Because business has had to restructure and become more efficient, the business community is becoming increasingly critical of higher education and they say should also be more productive and accountable to their various constituencies.

- There continues to be a need to recruit minorities and to develop strategies for their success.

- There is a need for videoconferencing interactive classes such as those being done at Big Bend, Othello, Waluke, and Grand Coulee for basic skills and Running Start students.

- More "applied" coursework is needed.

- A 46% increase in the Hispanic population is predicted by 2010 and more ESL, bridge programs and staff are needed.

- CBC needs to determine if its services match student needs.

- Community colleges and universities need to assist K-12's to improve outcomes and accountability, i.e., through integrated music and drama programs, athletics, and basic skills.

- More collaboration between business and higher education is needed for professional/technical student preparation.

- Faster and more flexible responses to community and business needs by the college are recommended.

Baccalaureate Institutions

- Average length of time to graduate from college with a baccalaureate degree is now 6.5 years.
- There is a need to reduce barriers for students transferring to baccalaureate institutions.
- WSU-TC will move from a concentration in science and engineering programs to education, business, agriculture, and social sciences.

Technology

- There will be an increasing number of electronic immigrants (cross-border students or students from other countries taking on-line courses from colleges within the United States).
- There is a continued increase in the use of technology for services of all types.
- Within the near future, K-12 teachers will be required to be certified in the use of technology.
- Because of increased technology in the classroom and increased demand for on-line courses, college instructors need to be more technologically proficient and need the training to become more proficient.
- The cost of upgrading technological equipment will continue to increase.
- Paperless systems will become more common.
- Colleges need to prepare students for an environment of change and the increased use of technology.
- The need for student services online will increase.
- There will be increased need for online programs and associated services.
- Orientations are needed for students enrolling in online learning to help them determine their potential for success.

State and Federal Mandates

Noel Commeree

The following issues have been developed based on observations at the local and national levels. These issues are directly related to trends and issues that will confront the college and the Skills Enhancement Division during the next three to five years.

Trends

- There is a major trend moving toward more short-term training programs ranging from hours to weeks.
- More employers are looking at hiring people who have training beyond high school.
- More people with limited English proficiency are entering the work force and require language instruction.
- Literacy continues to be a national focus and will have more funds available that target specific areas of the country and specific populations.
- The Workforce Investment Act will continue to impact the way colleges do business. WIA impact affects not only displaced workers and summer youth programs, but also basic skills, Carl Perkins, and corrections education.

Findings

- More employers are requesting on-site training. Contract training is a viable program that needs to be aggressively worked by a separate component of the college.
- State agencies have large amounts of money to provide childcare for low-income people entering the job market.
- A lack of childcare on the CBC campus hinders the college from enrolling additional evening and weekend students.
- On the national level, there are more funds available that target specific populations. In this region, the Hispanic community could be receiving more support if the college aggressively pursued some of these opportunities.
- On the national level, there will continue to be more money appropriated to the state for welfare-to-work programs.

- There are large amounts of money available to colleges who are willing to go through the bureaucratic hoops.

Economic Development

Dean Schau

Trends

- The Tri-Cities' economic health report is increasingly optimistic with a continued move towards diversification of businesses and away from a Hanford-dominated economy.

- A bimodal economy is rapidly developing in the Tri-Cities with agriculture on one side (relatively low wages but increasingly large numbers employed) and with Hanford on the other side of the scale (fewer numbers employed accompanied by higher wages).

Findings

Hanford-related

- Overall, the 1990s have been a good decade for positive changes in population even with the Hanford generated setbacks. During the 1980s decade, the community lost significant population and this too was tied to downturns at Hanford. In retrospect, the positive changes in population in the 1990s outperformed the state where the gain from 1990 to 1998 was 16.9 percent. The gain for Benton County was 21.1 percent and for Franklin County 18.8 percent. While outpacing the state average, the local cities lost ranking due to the tremendous growth in Western Washington urban areas. From 1990 to 1998, the City of Kennewick went from 10th to 12th largest in the state; Richland went from 18th to 21st, while Pasco went from 28th to 31st. Combined, however, they would be the 5th largest urban population in the state. Seattle is the largest. Spokane is number two, Tacoma is third and Vancouver number four.

- While some of the population gain is due to positive changes in the local economy, part is due to external developments. With a moderate commute to the Tri-Cities, four major projects have recently come to Umatilla and Morrow counties just south of the border from the Tri-Cities in Oregon. These include a nerve gas incinerator, a state prison, a Wal-Mart distribution center and a Union Pacific Railroad maintenance yard.

- While Hanford did lay off roughly 9,000 workers from 1994 to 1998, employment there has been relatively stable during 1999. Many of the laid-off Hanford workers successfully re-careered while many took the opportunity to retire. Some, after attrition, went back to work at Hanford. One very positive development is the

vitrification or River Protection Project. British Nuclear Fuels and Bechtel National, along with roughly 24 other contractors, employed a little more than 600 workers at the end of 1999. All things being equal, ceteris paribus, (and they never really are) this project should expand the economy of the Tri-Cities by upwards of 10 percent.

- The 1990 census showed that the Tri-Cities had a highly-skilled labor force. While the Tri-Cities represented 3.0 percent of the state's total workforce, it had 5.7 percent of all engineers and 8.8 percent of all natural scientists. A high tech component of the workforce does not imply a high-cost labor force. In fact, a recent study of wages in Franklin County revealed that this county had the most attractive wage structure of any metropolitan community in the state.

Agriculture

- For the Tri-Cities economy, 1997 and 1998 were good years at the farm level. The years 1999 and 2000 will not be nearly as fortunate. While agriculture and related industries don't quite achieve the size of the Hanford payroll, roughly $560 million in total numbers, they now employ more people directly on the farm and in the associated industries of food processing, food packing, and providing services to local farmers.

- With 10,194 farm jobs in 1996, the Tri-Cities was the third largest farm employer in the state, nearly tying with Chelan and Douglas counties (Wenatchee Area) for the second place with their total of 10,670.

- By 1997, the farm job total had risen modestly to 10,400 but farm payrolls rose by 13.9 percent from $120,876,694 in 1996 to $137,635,428 in 1997 and $154,104,972 in 1998.

- In potato production, the Tri-Cities ranked number one capturing almost 43 percent of the state's output. Grant County, the next nearest county, yielded 68 percent of the Benton-Franklin total. Taken alone, Benton County and Franklin County would be number three and number two, respectively.

- The Tri-Cities also ranks at the top in vegetable growing. In 1997, the two counties grew 53 percent of the state's processed carrots, almost 57 percent of fresh market carrots, over 52 percent of the asparagus, 49 percent of storage onions, and nearly 37 percent of the processed sweet corn.

- An estimated 4,583 workers were associated with fruit production in 1997; this was 12.6 percent of the state's total.

- More than 900 local farms helped fuel the large local food processing industry, which in 1997 generated a payroll of $93,072,722 and an annual average pay of $30,809. By 1998 the payroll total had grown by 16 percent and totaled $107,924,906 paid out to 3,431 workers for an average yearly pay of $31,456. Major employers include JR

Simplot Co., Milne Fruit Products Inc., Preston, Seneca Foods Corp, Stimson Lane LTD., Hogue Cellars, Welch Foods, Washington Frontier, Zen Noh Hay, Lamb Weston Inc., Twin City Foods Inc., Watts Brothers Frozen, and Sage Hill Northwest.

- Locally, Lamb Weston operates three plants in the bi-county region as well as a corporate headquarters in Benton County. Twin City Foods (which has operated in the community for many years) has recently completed a $20 million frozen corn-processing plant in the Pasco Processing Center. The new addition to local food processing will employ 100 year-round workers with up to 300 workers during peak seasons. Also coming into the lineup is the $15 million dollar plant owned by Reser's Fine Foods. The plant makes refrigerated potato products and will employ 75 to 100 full-time workers.

- In 1997, 46 local firms operated food-processing plants in the Tri-Cities. They created about 3,400 jobs. Smaller firms turned grapes into wine and the larger firms processed vegetables, especially potatoes. In the Tri-Cities, 243 persons, or more than one-third of the state's total, were involved in winemaking. In vegetable processing (including processing potatoes into french-fries) the Tri-Cities has the largest employment in the state with 3,021 jobs, followed closely by Yakima County with 2,760 and Grant County with 2,591.

Manufacturing

- Excluding food processing, around 128 other firms operate manufacturing businesses on both sides of the river. Major industries include printing and publishing (mainly the Tri-City Herald), chemicals and allied products, primary metal industries, fabricated metal, industrial machinery and equipment, electronic equipment, and instruments, as well as many others. A considerable number of manufacturers operate around Prosser.

- The local chemicals industry is one of the highest paying with an average wage rivaling any in the state. Siemens Power Corp. dominates the industry, but there are also Unocal and several smaller agricultural chemical producers.

- If the primary and fabricated metals products industries are combined, 14 firms operate in the Tri-Cities with 402 employees, with a combined payroll of $15,459,695 and an average pay in 1997 of $38,457. The following year, total employment had grown by 22.9 percent to 494 and the payroll totaled $19,487,914. Employers include Architectural Metal Systems, KC Sheet Metal Inc, Metalfab Inc, Monarch Machine, Tri City Fabricating Inc., Kaiser Aluminum, Sandvik Special Metals, Titanium Sports Technology and Western Sintering Co.

- The industry of industrial machinery and equipment employed 131 workers in 1998 among 21 firms with a payroll of $3,887,230. The largest employer is Dyna Pak, which makes food packaging machinery.

- The industry of electronic and electric equipment, and measuring, analyzing, and controlling instruments had 20 small to moderate size employers. Their employment totaled 229 employees with a total payroll of $7,916,963 and average yearly pay of $34,572. Major employers include Chemcheck Instruments Inc., Staveley Instruments, and Cadwell Lab Inc.

- While the Tri-Cities truly shines in food manufacturing and in the other areas mentioned above, the community certainly has less than its share of higher paying manufacturing jobs compared to other Washington areas.

- In 1997, jobs in manufacturing in the Tri-Cities were only 8.5 percent of non-farm totals. Only one other metropolitan region in the state had a smaller percentage of manufacturing jobs and that was Bremerton at 3.0 percent. The one characteristic the Tri-Cities shares with that community is the large presence of federally sponsored projects.

- While the population has grown and the economy has stabilized, one challenge remains clear and daunting. That is less reliance on the DOE-Hanford payroll, which still remains roughly 25 percent of all non-farm payroll income.

K-12 Enrollments

- School enrollment in Benton County slightly outpaced the gain in county population having increased by 22.3 percent in both public and private schools. This is when the school years 1990-91 were compared to 1997-98. In Franklin County, the reverse was true. The gain in enrollment, 13.9 percent, was less than the gain in population.

- The minority enrollment in both counties advanced by 50.4 percent when the school year of 1990-91 was compared to 1997-98. This was not atypical; the state's count grew by 52.5 percent.

- In Benton County, all racial groups added to the rise in school enrollment. The Hispanic population went from 9.7 percent of K-12 enrollment in the year 1990-91 to 13.4 percent by 1997-98. In Franklin County, African-American enrollment actually fell by 28 percent while the proportion of the Hispanic school children went from 38.6 percent to approximately 64 percent.

Community Literacy

Members: Cheryl Klym, Ron Weed, Joyce Oates, Julie Epperly, and Susan Sandmeier, Chair

Trend

- At the national, state, and local levels, the trend is for a marked increase in the need for literacy services.

Findings

- There is a continuing need for literacy programs.
- There is no dominant country of origin for incoming refugees.
- Spanish is the predominant language for children in grades K-5 in the Tri-Cities.
- The Hispanic population of Benton and Franklin counties has doubled in the last 10 years.
- The general population of Benton and Franklin counties has grown 30% from 1990 to 1998.
- One needy population group is identified as being between 16 and 18 and not in school. Presently CBC offers no educational services to this group.
- Illiteracy is linked to poverty.
- Immigrants from Spanish-speaking countries have less formal education in their own country. Pasco schools are 56% Hispanic; North Franklin schools are 50% Hispanic.
- There is an increased need for instruction beyond the GED, particularly in Information Technology.
- Computer instruction (including Internet usage) will be included in the Washington State competencies for adult education and will create a need for additional instructors and equipment.
- More federal dollars are being spent on literacy, but less dollars per student.
- Collaboration with other agencies is increasingly necessary to qualify for state and federal dollars for literacy. There are many work-related programs and family literacy programs.

- Money is increasingly available for basic skills in the workplace. But there are local issues concerned with the value/importance employees and employers give basic skills.

- National numbers of ESL students are up from 1.2 million in 1994 to 2 million in 1998.

- Projected enrollment in adult education for 1996-2006 is expected to grow by 30%.

- The jail population is shifting to a bimodal population with a large group of younger inmates who have a need for education and an older group of inmates who have increased health problems. The health issues receive a higher funding priority, which leaves less money available for education.

- The state prisons are requiring all inmates without a high school diploma or a GED to take classes in adult education, creating a need for more basic education opportunities.

LOCAL DEMOGRAPHICS

Russ Schmeckle

Trends

- There will be substantial increases in the number of older workers and retirees.

- Within the next five years, the population will increase due to the Baby Boom Echo and increased numbers of students will begin arriving at CBC.

- The result of an increased number of older workers and an increased number of younger workers will be an hourglass shaped labor force, small in the middle and large on each end.

- The Hispanic population will continue to grow in the Tri-Cities both through births and immigration.

- The need for basic skills education will continue to increase.

Findings

Introduction

With the 2000 census forms still in the mail, this is not the most propitious time to collect data on the population of Benton/Franklin Counties. The first part of the findings presents some data on population size, age distribution, race and ethnicity, and educational characteristics. The second part consists of a few observations about CBC responses to these data.

Population

- Local (Benton/Franklin County) demographic characteristics generally, although not entirely, mirror those of the nation. Births will remain at roughly the 1990 level until around 2005 when a gradual increase in the number of births, peaking in 2020, will begin. Baby Boomers (those born from 1946-1964) have had small families and so have their children, but there are so many of them that the total population will rise. Currently in the two counties there are about 26,000 persons between the ages of 15 and 24. By 2005, this will increase to just under 30,000. The other age group that will expand is the retirees as the Boomers themselves reach retirement age. The result of these two trends will be an hourglass shaped labor force, small in the middle and large on each end.

Race/Ethnicity

- Benton County currently has a population of 137,500 of which 1,504 are African American, 975 are Native American, 3,596 are Asian and 15,374 are Hispanic. In percentage terms this means that African Americans are 1.1%, Native Americas are 0.7%, Asians are 2.6% and Hispanics are 11.2%. Franklin County currently has a population of 44,400 of which 1,113 are African American, 261 are American Indian, 1,417 are Asian and 20,343 are Hispanic. In percentage terms, this means that African Americans are 2.5%, American Indians are 0.6%, Asians are 3.2% and Hispanics are 45.8% of the total. The Hispanic element of the population is growing very rapidly, both through birth and immigration.

Educational Issues

- Enrollment in public and private schools (K-12) in the two counties has risen to 41,125 in 1999, an increase of slightly more than 21.8% since 1990. The Hispanic portion of both counties' school districts has almost doubled in the last decade. Franklin County schools are more than 64% Hispanic.

- In Benton/Franklin counties the school dropout rate is 4.1% with Franklin County's 11.0% being the highest in the state of Washington.

- In Benton/Franklin Counties in 1990 almost half of the persons who speak a language other than English at home did not speak English "very well." That number may have increased substantially in the last ten years. It is estimated that 13% of adults in Benton County and 27% of adults in Franklin County are at or below Level 1 literacy. Persons at Level 1 may be able to sign their name or locate one piece of information in a sports article, but they cannot locate an intersection on a street map, enter background information on a social security card application or locate two pieces of information in a sports article.

CBC Responses to Trends

- CBC will have a few years when the number of college age persons remains stable but will have to prepare for increases beginning in about five years. There will be substantial increases in the number of older workers and retirees. Recent legislation erasing the old earnings cap for social security recipients is a response to a demand from older Americans. CBC should consider retraining or education programs for these people.

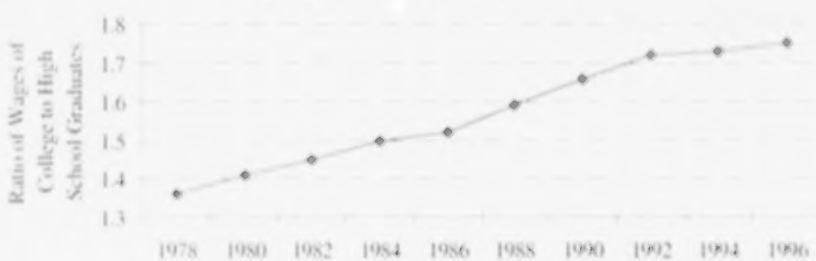
- Clearly, the major demographic fact of the area is the increase in Hispanic population. This will require adjustments in several ways. CBC already has a large ESL program and it will probably continue to grow. More Hispanics will be entering classes at all levels, necessitating some responses and perhaps curricular change.

- Hispanic surnames are not predictors of success or failure in CBC classes. They cover the range from the best to those who do need assistance.

- Basic skills education will have to be expanded.

- As the value in terms of dollars of a college degree continues to increase, CBC must continue to enhance the academic or "transfer" curriculum.

Rising Payoff to Education, 1978-1996



- A recent study conducted by the Higher Education Research Institute at UCLA found that 40% of freshmen reported having been bored in high school with 63% noting that they arrived late to class frequently or occasionally. Forty percent reported studying less than 3 hours per week and 17% studied less than an hour each week. Despite these behaviors, substantially larger numbers reported getting good (A) grades. CBC must continue to develop the kind of faculty who can re-engage these students and maintain high standards.

WORKFORCE TRAINING AND RETRAINING

Members: Sharon Hackney, Daphne Moran, Ken Williams, Judith Whitehead and Carla McLane, Chair

Armed with the task of looking forward, assessing the future with respect to issues related to worker training, the interest group members decided to each evaluate the literature from his or her own perspective. A wide variety of findings were brought forth with the following primary trends identified.

Trends

- Quality of instruction in the training areas and a service-oriented approach will become increasingly important as colleges move to meet employer expectations.
- Colleges will continue to be a major source for training, retraining, and life-long learning for their communities.
- Nationwide growth in the construction industry is beginning to level off after two years of unprecedented activity.
- There is an ever-increasing need for information technology workers.
- The community college will continue to be the site for short-term training programs created as a result of sociological and governmental policy changes.

Findings

- Dozens of community colleges across the nation are offering "guarantees" to employers. The guarantee is that the newly hired graduate will meet employer expectations or the community college will retrain the graduate "free" (no tuition cost). This is a service-oriented approach to the students and their future employers, who will begin to see this as desirable. Controversial impacts to the college may include more frequent evaluation of effective instruction. Student learning objectives will be linked more to demonstrable outcomes rather than pen and paper test results.

On the popular side, relationships with local businesses will increase and improve. Student enrollment may increase if completion is more closely tied to successful employment.

- As community colleges struggle to meet the needs of business and industry, serve students multiple times during their lifetime of work, and become more responsive to the economic needs of their communities, what impact will this have on how education and training services are delivered? As a response to Workforce Development issues across the country, community colleges are creating new business units, hiring individuals from industry to lead them into the 21st century. In many colleges this is done in a unit called "lifelong learning." This unit could facilitate all programs for careers in the private and for-profit sector with special emphasis on programs in business, finance, insurance, engineering, and the trades. All training, contracts, partnerships, certificate programs, courses, and degrees would be planned and executed by this division. The Washington State Board for Community and Technical Colleges has just released a report matching college professional and technical education capacity to employer demand. This report should assist colleges to find new and innovative ways to work with business and industry. See the State Board for Community and Technical Colleges website at *www.sbctc.ctc.edu.*

- In the construction industry, after two years of historically high levels of activity, growth is expected to level off in 2000. Fifty nine percent of builders see no change in the level of construction activity compared to 1999. According to 38% of the executives surveyed, the lack of a skilled, quality workforce is the most serious problem the industry faces. Community colleges in North Carolina, as a response to the devastation of Hurricane Floyd, are quickly creating and delivering short courses in the construction trades. For communities in North Carolina this will help address the skills needed to rebuild, but also provide training in essential trades that can be continued well beyond the crisis of today. See the website at *www.citgroup.com.*

- Even though Y2K has come and gone, the need for information technology workers has not. According to the Department of Labor, the shortage of high-tech workers will exceed 1 million by the end of 2005. How to address this shortfall of workers seems to be on everyone's mind.

- Increased use of technology will require workers to communicate more effectively and be more articulate, making soft skills critical to an employee's career success. As technological advances allow us to communicate more rapidly, more often, and with greater numbers of people, the need for these skills will accelerate, and will expose people who are lacking in communication, diplomacy, and problem-solving skills. Even the most brilliant ideas may never materialize if their creator can't explain them clearly or persuasively. Six key "people" skills are identified to be needed in the future: problem solving, ethics, open-mindedness, persuasiveness, leadership, and educational interest (a willingness to pursue training in new skills and acquire knowledge in unfamiliar areas). These people skills are intangible and can be more difficult to develop than technical expertise. Typically, in the absence of a cultural

education, people have to build these abilities over time, through observation, experience, and instinct. Perhaps it is time that colleges paid more attention to this. See the website at *www.officeteam.com*.

- Worker Retraining, WorkFirst, WorkSource, Workforce Investment Act, Workforce Development... This is just a sampling of the different types of programs in Washington State to assist workers to meet their needs. Community colleges across the state are charged with providing wage progression activities for TANF (Temporary Assistance to Needy Families) recipients and low-income workers, with being a major partner in the delivery of one-stop activities to assist individuals obtain better employment, with providing training services under the federal Workforce Investment Act (WIA), and with developing new curriculum to provide training that meets industry skill standards.

- The US Army, in an effort to entice new recruits, is considering changing the qualifications for new recruits as well as offering an extensive curriculum of college-level courses delivered via the Internet. The change of qualifications would end the focus on a high school diploma as the key standard. The US Army will look at work experience and a willingness to take courses to pass the GED as measures of worthiness. Additional recruitment efforts include providing the opportunity for soldiers to earn an associate's degree during their initial four-year enlistment on army time and at virtually no cost to the soldier. Providing soldiers with time to study and access to computers while on duty is a measure of how desperate the military has become. The Army fell short of its FY1999 recruitment goal by 6,300 people, but was able to re-enlist enough soldiers to make up for the shortfall. The Air Force and Navy missed their personnel goals with only the Marines exceeding their recruiting goals. The Pentagon is privately worried it will miss its FY2000 recruitment goals by 7,000 to 8,000. Because of low birthrates in the late 70's and early 80's, the potential pool of military recruits is the lowest it's ever been in the 25-year history of an all-volunteer military, and the hot economy isn't helping.

FINANCE

Members: Mike Grinnell, Dean Schau, Noel Commeree, Gene Tyssen, Tracy Witeck, Debbie Bruce, Mike Smith, Ruben Lemos, Tara Lewis, Judi Knutzen, Deborah Meadows and Bill Saraceno, Chair

Introduction

The coming decade offers both opportunities and challenges for community colleges. This is especially true with respect to the financing of community college education, from the vantage point of both institutions and the students they service. The previous two decades have seen a broad array of changes in the higher education environment, many of

which have significantly affected community colleges. As a new decade approaches, these changes will increasingly impact who pays for a community college education, how, and to what end.

This environmental scan offers a snapshot of the current community college financing context, beginning with the revenue and expenditure trends that have shaped that financing.

A white paper written under a grant from the W.K. Kellogg Foundation by Jamie P. Merisotis and Thomas R. Wolanin with The Institute for Higher Education Policy, Washington D.C. provided the basis for the following Trends and Findings. The entire paper is available at the following website address: http://199.75.76.16/initiatives/ne…ions/White_Papers/financewhite.htm.

Trends

- Trends in total institutional revenues for community colleges indicate significant shifts toward external revenue sources and away from basic state and local funding for general operations.

- Trends in total institutional expenditures portray a more complex interaction of factors with scholarships and student services leading the increases and instruction and academic support increasing at a somewhat slower pace due primarily to the use of adjunct faculty.

- There will be increased reliance on federal funds for Pell grants, student loans and support through contracts for worker training and programs associated with the Workforce Investment Act, adult education, and vocational rehabilitation.

- Increased K-12 enrollments (Baby Boom Echo) will have a profound effect on community college enrollments and financing.

- Remedial education will continue to have an impact on costs.

- There is increased availability of tax-based alternatives to assist students in paying for college costs (tax credits, education IRA's, Hope Scholarship).

- An aging student population could result in increased costs for campus childcare and night and weekend facility access but it could also lead to higher overall revenues because of higher incomes and lower financial need.

- The number of students requiring English as a Second Language training will increase along with an increasing demand for support services which adds to the cost of total support for remedial services.

- There is a trend for community colleges to become essential centers of worker training. The key question is how to strike a balance between these direct worker training efforts and general education programs which provide students with broader skills, such as critical thinking.

- There will be an increasing number of under-prepared minority populations enrolled at community colleges.

- There will be an increased number of students with disabilities with increased costs for infrastructure needs, special equipment, and added services such as notetaking, alternative exams, and registration assistance.

- There is declining support for welfare participants seeking postsecondary education; however, there will be an increase in the number of short-term programs developed for this population.

Findings

- In the period 1994 to 2005, 51% of the new entrants to the labor force will be minorities and minorities are projected to be the majority of the U.S. population by the middle of the next century.

- Absent dramatic changes in U.S. immigration policy or rapid acceleration in economic development in the rest of the world, particularly Latin America, the influx of non-English speakers will continue.

- Those with disabilities will increasingly become participants in the mainstream of American society including its educational systems and workforce.

- Americans are living longer and staying in the workforce longer. They will need training tailored to their needs as they adapt to the changing society and economy, and they will demand more services and activities to enhance their retirement years.

- The page of economic changes (driven by global competition and instantaneous worldwide flows of information, data and analysis) and the premium on high up-to-date skills will remain. Business and industry will demand ever more frequent and sophisticated training and retraining.

- The strict time limits on eligibility for welfare are likely to increase the demand for training those currently receiving welfare benefits. This trend will accelerate if the current stringent limits on the amount of "education" that can be substituted for "work" are loosened.

- Many students will continue to need remedial instruction before they can effectively benefit from education and training at the postsecondary education level. They may

be those who have limited English proficiency; who have been away from schooling for a long period; who have dropped out and are on welfare; or who have received poor quality elementary and secondary education.

Conclusions

Given the current structure of American postsecondary education, it is reasonable to believe community colleges will continue to serve as the port of entry to postsecondary education for these diverse populations. The leaders of community colleges need to plan for a future in which the many dimensions of diversity in clients and missions continue to dominate the strategic environment. This suggests a variety of efforts, from the education of individuals with disabilities to the support services required to serve an aging student client base, should be incorporated into the core budgeting and funding of institutions.

EDUCATIONAL COSTS

Members: Junqin Xing and Gene Tyssen, Chair

Trends

- The price of higher education will continue to vary greatly depending on the type of institution.
- The price of college has outpaced inflation. Many in Congress see a direct relationship between tuition increases and financial aid provided by the federal government.
- Financial Aid continues to increase the affordability for eligible students.
- Since the Middle Income Assistance Act of 1977, the poor have lost ground, especially in the grant programs.
- Since 1977, middle-income students have received increased Financial Aid benefits.
- The Hope Scholarship and Life Time Learning credits are the most recent examples of the federal trend in assistance that is not directed to help the poor.
- States are following the federal trend and are offering more scholarships to students regardless of financial need.
- Students from low-income families are experiencing a greater demand upon their family income due to the unmet need in aid packages.

- For many, the cost of education continues to be a barrier to entering and continuing in college.

- Private for-profit schools will have an increasing impact on the pricing of tuition and on the delivery methods of instruction.

- More non-traditional methods of instruction, mainly through the increased use of distance learning methods, will be offered to counter the rising cost of higher education.

Findings

Typical Costs

Educational costs can be separated into two groups.

- Indirect costs - expenses controlled to some degree by the student: personal expenses such as childcare, books and transportation.

- Direct costs - Expenses of tuition and fees, supplies, room and board.

College tuition and fees rose this year by an average of 3.4% at four-year public institutions and 4.7% at four-year private institutions, according to a recent report from the College Board. Those increases, however, are the lowest in 12 years:

- $7,182 at two-year private institutions, an increase of $242, or 3.5 percent. The increase in 1998-99 was 3.6 per cent.

- $1,627 at two-year public institutions, an increase of $73, or 4.7 percent. Last year's increase was 4.2 percent.

Community colleges provide the least expensive college choice for students and parents.

Community college tuition and fees average about one-tenth the average tuition and fees paid at private four-year colleges and universities.

Community College Students

Community colleges draw their students from a much different population than do four-year institutions.

- With an average age of thirty-two, community college students are usually older than those students attending four-year colleges and universities.
- Some 47 percent of undergraduates at community colleges are employed for thirty-five or more hours per week, in contrast to 27 percent of those at four-year colleges and universities.

- Roughly half of minority students or students with ethnic backgrounds pursuing higher education enroll in community colleges. For example, 45 percent of African-American students, 52 percent of Hispanic students, and 56 percent of Native Americans enrolled in higher education attend a community college.
- Of students at community colleges, 40 percent are from families with incomes of less than $30,000 a year, in contrast to 28 percent of first-year students at four-year colleges and universities.

K-12

- In about half of the states, college enrollments are projected to increase by 30 percent or more over the next fifteen years; this will place the greatest demand on state higher education systems since the Baby Boom cohorts of the 1960's and 1970's.
- The potential pool of the next generation of college students is the most diverse in higher education's history. It may also be the poorest. The proportion of children in poverty is highest in many of the states that expect the greatest growth in absolute numbers and ethnic diversity.

U.S. Economics and Colleges

- The labor market remains volatile, even as the American economy continues to grow and unemployment falls. Demand for retraining and upgrading of skills is likely to intensify during both good and bad economic times, and preparation for second and third careers is becoming commonplace. Moreover, in the global information economy, education and training beyond high school have become necessary conditions for jobs and careers that permit Americans a middle-class standard of living.

- The uncertain impact of federal devolution of responsibilities to the state and local levels is likely to absorb state funds, and in most states higher education will not face intensified competition with other public services.

Although community colleges provide the least expensive college choice for students and parents, they need to change because of the many factors: costs rising in education in general, demographic change, economic change, and technical change. For example, students and legislators may bypass community colleges and turn to Internet colleges.

Computers and related electronic wonders offer potential for extending opportunities without major investments in bricks and mortar. In its interactive forms, electronic technology offers alternatives that are more active and collaborative than most conventional classroom and lecture instruction. And it can make learning more individualized by tailoring the pace and level to each student. The almost limitless reach of electronic communication and interaction can also make geographic and political boundaries obsolete. The territories contained by state lines and local community college districts will be increasingly permeable by public and private competitors.

Technological advances carry the possibility, or threat, that states will bypass traditional institutions completely, including community colleges. John S. Daniel, vice chancellor of the Open University in the United Kingdom, has recently described eleven "mega-universities" throughout the world (none currently in the United States) that serve more than 100,000 degree-seeking students through distance learning, at costs far below that of community colleges.

Strategies Related to Costs

Educating more students without commensurably more money may leave the states and the colleges with a set of four difficult choices. Three of these have long been arrows in the quivers of college administrators: raise tuition, limit enrollments in high cost programs, or increase productivity by conventional means. The fourth option would be to increase productivity through non-conventional means. All have advantages and disadvantages, but, on balance, the fourth appears to hold the best chance for maintaining the community colleges' place at the leading edge of college and career opportunity.

- Raise tuition significantly; however, with the low income of so many of the new students, this could have a significant, adverse impact on access by pricing many students out of participation. A massive increase in need-based student financial assistance would temper the impact, but funding this assistance would require a major public policy commitment to aid needy students, which has not been the trend (since the Middle Income Assistance Act of 1978).

- Maintain enrollments at current levels--or at whatever levels can be supported at the current expenditure per student. This would necessarily reduce access while the number of students desiring access to higher education is growing.

- Raise productivity through the conventional means: larger classes, higher student-faculty ratios, or greater proportions of lower-paid faculty, particularly part-timers.

- Raise productivity through non-conventional means: use students' time better so they can exit sooner, incorporate more technology, offer alternative learning strategies to award degrees or credentials, and/or use existing facilities more effectively.

Options one and two are unlikely to be politically sustainable. Tuition levels and access can be highly salient issues in state capitols. Many states that raised tuition sharply in the early 1990s had, by the middle of the decade, been forced by adverse public reactions to impose freezes on tuition increases. California's experiment with steep tuition increases and enrollment reductions, for example, provoked a public backlash that sent elected officials and higher education leaders running for cover.

Option three is the least palatable to community-college faculty but may be the most politically attractive to state legislators and governors, if, that is, the colleges have not already taken the initiative suggested in option four. The attraction of option three is that it would provide access to "something" for all applicants, who are eligible and motivated,

even if the "something" were the educational equivalent of an industrial assembly line. This option is also more politically appealing than the first two because it would have an impact on fewer people.

Option four would also improve productivity but would do so by developing and implementing alternative approaches to conventional, classroom-based instruction. Unlike option three, this scenario cannot be mandated by government but instead requires the participation and leadership of the colleges and their faculty.

UNEMPLOYMENT

Members: Anna Mitson and Rick Perez, Chair

Trends

- The Tri-Cities area will continue to have a fundamentally strong economy supported by agriculture, food processing, and related industries on the one hand and government related employment on the other.

- Even though the Tri-Cities has the second highest rate of unemployment in the state following Yakima, employment will continue to increase locally but at different rates for farm and non-farm employment.

Findings

- Since 1970, unemployment in the Tri-Cities has generally been greater than throughout the state. The average since 1970 is 9.5% in the two counties and 7.9% in the state. Until 1982, unemployment in the counties closely paralleled that of the state. However, from 1982 when the Tri-Cities rate hit 14.2% until the early 1990's when the rates converged, a large gap between the two persisted. Following the national recession of 1990-91, unemployment rates in both counties increased, leveled off, then decreased sharply in 1994. Although the counties' unemployment rate dipped below the state's in 1994, the gap between the Tri-Cities and the state seems to be reforming. The Tri-Cities 8.1% unemployment rate in 1995 equated to 7,600 persons seeking work.

- Both Benton and Franklin counties had seasonal employment levels significantly higher than did the state as a whole in 1995. Benton County had seasonal industries representing 27% of county employment compared to the 24% seasonality rate registered throughout the state. Franklin County, however, had a much greater 45% seasonality level among its workers. This higher than average reliance on seasonal employment in the Tri-Cities fosters labor market volatility.

- The Tri-Cities workforce and its unemployment rate have varied considerably over the past two decades but are in relatively healthy shape now. The workforce

increased in size by 85% from 1970 to 1990, going from 40,330 to 74,700. At times during this period, it was larger: 80,000 in 1980, 83,300 in 1981, and 81,500 in 1982. After those swollen years that were directly related to WPPSS construction, the number of employed decreased and unemployment increased. The worst year for joblessness was 1982 when the unemployment rate hit 14.2%. Since then, the rate has decreased almost every year. 1990 saw the jobless rate at 7%. 1999 saw the jobless rate at 6.5%, the lowest since 1979. Workforce size, since hitting its low point in 1985 of 68,100, has grown every year except 1988. The 1999 total of employed is 88,800.

- Unfortunately, like the pay scale, unemployment in Benton and Franklin counties is two-tiered. In Franklin County, the percentage of unemployed is consistently higher than in Benton County, and the difference has widened in recent years. The seasonality of the agricultural work that predominates in Franklin County and the stability of Hanford employment in Benton County can largely explain the gap between the two. Also, the share of Franklin's total employment devoted to agriculture has increased far more than Benton County's in recent years. Agriculture is growing at a rapid rate with employment increasing each year. The trade and services sectors are large and growing. Construction has recently taken a sharp turn upwards, and the government sector has a large and stable workforce.

- There are large differences in unemployment among the various ethnic groups in the Tri-Cities areas. The largest ethnic group, whites, had the lowest unemployment rate in both counties. Those of Hispanic origin, the second largest group, had double-digit unemployment, as did all other non-white groups. Unemployment among women was greater than among men in both counties. This is contrary to the averages for Washington as a whole where women had a slightly lower unemployment rate than men.

- Almost half of all unemployment insurance claims (45%) in Franklin County stem from either agriculture or processing occupations. These jobs only represent 19% of Benton County claims and 12% of statewide claims. Benton County has far more claims stemming from professional, technical, and managerial jobs than does Franklin County. Not surprisingly, the claims in Franklin County point to a resource-based agricultural economy with its attendant high level of unemployment, while the claims from Benton County are more closely tied to the type of economy. As a share of the local labor force, Benton County's unemployment claimants amounted to 12% while Franklin County's amounted to 20%.

- The Tri-Cities area has a fundamentally strong economy supported by agriculture, food processing, and related industries on the one hand and government related employment on the other. While the nucleonic work at Hanford is currently in the midst of some downsizing, the project is long range and will employ substantial amounts of people for years to come. Employment with direct contractors at Hanford took a monetary setback as the total number of jobs went from 9,560 in January to 9,391 for February. Agriculture, food processing, and related industries are also

primary elements of the economy and will continue to provide a substantial employment base. Farm employment advanced quite a bit going from 6,170 in January to 7,170 in February. It is still a bit weak when compared to the total of 7,220 posted for February of 1998.

- Non-farm employment also registered a nice up-tick going from 72,300 in January to 72,800 for February. Contributing to the increase were the industries of food processing, construction, and public education. The rise in both farm and non-farm employment caused the total employment to increase from 83,200 in January to 84,200 in February. The gain in employment allowed the rate of unemployment to fall from 8.3% to 8%. The 8.3% will likely be the highest for the year. Last February the rate of unemployment for the Tri-Cities was 8.6% with much of the improvement due to the count of total unemployment going from 7,900 to 7,300. Relatively much of the reduction in joblessness occurred on the Franklin side of the river. Even with the improvement, the Tri-Cities continues to have the second highest rate of unemployment in the state following Yakima.

TECHNOLOGY

Members: Joe Judy (WSU) and Rich Cummins, Chair

Trends

- Cost of information technology will continue to increase at an unaffordable rate.
- There will be increased pressure to enter into distance education measures, as education becomes increasingly corporatized.
- There is a tendency to confuse training with education.
- Because of Moore's and Metcalf's Laws, planning remains more of a sullen art than a success. [Moore's Law states that computing power roughly doubles every eighteen months. Metcalf's Law states that each node you add to a network increases the value of the network. In other words, the more folks using PC's to connect to the Internet, the more valuable the Internet becomes.]

Findings

What sort of impact will CBC feel from the revolutionary innovations occurring in information technology?

Environmental Imperatives

Columbia Basin College is a college with similar pressures that affect other higher education institutions, both larger and smaller. CBC is experiencing the same and multiple stressors that currently affect the information technology world in general, as innovations in hardware and software have our Information Technology faculty and staff scrambling on a daily and quarterly basis to remain current.

The breakdown between traditional barriers and the "Ivory Tower" and the so-called "Real World" have led to a position in which staff need to become partners in the student learning process, with faculty governance in key areas to ensure proper subordination to instructional strategies and concerns.

While it has always been assumed that faculty need to be excellent communicators, the same is now true for college staff, who are often engaged in instructional and training activities with faculty, students, and other staff. Increasingly, there is pressure along the following lines:

- Computer science and information services groups need further integration into one unit.
- Media services would be ideally situated for a move into some aspects of production, especially for distance education.
- Information technology programs will explore entrepreneurial relationships with strategic partners beyond internships.
- There is an influx of instructors who are new to the profession and need to be supported in their professional development.
- Information service groups need to somehow provide a lot of training for end-users with little interest in information technology.
- Information service groups need to proceduralize operations at the management level, providing data for informed decisions. Too often there is poor or missing documentation and evidence.
- Curriculum development, revision, and assessment are top priorities.
- In an era of decreasing state funding participation, the college must actively seek grants.

Curriculum Imperatives

- Every college is scrambling to develop a "Distance Learning Boot Camp" for potential DL students.
- There is a continued need to develop support services around distance learning.
- There is a continued need to develop curriculum for courses that change every year.
- We must continue to seek out curriculum development grants.
- We must continue ongoing improvement of new programs.
- We must continue to develop along certification standards (MCSE, Novell, Cisco, et al).
- We must continue ongoing development and improvement of transfer courses.
- There is a continued need to develop distance learning components for all courses.

Business Imperatives

- Competition for delivering quality technical programs in these departments is increasing at a breakneck pace.
- The business paradigm is, in paradoxical ways, aspiring to supplant the educational paradigm.
- Workforce training is a primary concern of every state legislature.
- Strategic partnerships and alliances are being formed to promote curriculum development, responsiveness to industry, career opportunities for students, equipment loans and donations and so forth.
- Business arrangements to increase efficiency (such as leased equipment or services) are being explored and reviewed on a quarterly or semi-annual basis.
- Liaison positions are being created to help further the workforce-training mission of colleges.
- Programs should account for the fact that skill- and competency-based instruction requires that time become the variable with learning as the constant, rather than vice verse in the traditional manner.
- Low enrollments in certain programs need to be understood in the context of high employment in a booming economy.

Client Service Imperatives

- Work-based and service-based learning in the real-world environment that college and its partners can afford are to be encouraged at every opportunity.
- End-user support is the primary concern for service groups.
- Service groups should develop a dual-client base: the end-user in general and also the specific department/curriculum they can effectively support.
- Service groups should develop incident resolution timelines and/or job timelines, strategies, and goals.
- Service groups should provide good communication to the end-user in a prompt, reliable fashion. Faculty departments should provide the best quality instruction.

Efficiency Imperatives

- Money needs to be funneled to faculty and staff development first with technology spending second.
- Technological improvements should be made only when there is a guarantee that: a) faculty/staff/students will actually use it; and/or b) the improvement(s) are required to avoid obsolescence (and this must be proven with reliable evidence and process before dollars are allocated).
- Curriculum must not be redundant between departments or excessively review previous quarter's materials within departments.

- Travel is limited to occasions that have clear benefit to the college, and travelers are being instructed to take every opportunity to reduce costs by whatever means are available - videoconferencing, Internet conferences, etc.

Funding Imperatives

- In service areas, focus on people rather than tools as the first priority because the human-machine interface works only when there are helpful intermediaries who anticipate and proceduralize responses to the end-user's needs. A million-dollar tool is useless unless someone uses it to assist the student learning process.
- In academic areas, focus on providing budgets that allow faculty members to purchase the equipment, goods, and services they need.

Multi-Agency Opportunities

- Leverage strategic partnerships between college and K-12, between college and business and industry to create economies of scale, eliminate redundancies, and increase efficiencies.

Organizational/Staffing Imperatives

- We need to develop new organizational structures from bottom-up for information services groups.
- There is a continued need for staff to develop instructional products to be sold for profit.
- There is a continued need for staff to develop a college as a Certified Learning Provider in the for-profit, non-credit sector.
- We must break down the traditional barriers between faculty, administrative-exempt, and classified employees.
- We must develop staff along with faculty in related teams.

Information Management & Technology Imperatives

- We must leverage other people's infrastructure in technology and information.
- There is a need to dis-aggregate and modularize course content (outside of normal programs).
- We must go for certification instead of credit.
- There is a need to develop credit banking between colleges.
- Do not spend any money without sufficient evidence to argue that the purchase is justified.

Twenty-seven Technologies That Will Profoundly Impact Education

The following technologies listed by Daniel Burrus, Author and Futurist, in Converge magazine are those that will most profoundly impact education within the next 5 years:

Internet (IP) Telephone & Fax
District-Wide Intranets & Extranets
Knowledge-Sharing Electronic Communities

Knowledge Bases
Wisdom Bases
Groupware
Web-Based Education
Just-In-Time Training
Desktop Videoconferencing
Ultra Intelligent Electronic Agents
Network Computers
Advanced Expert Systems
Digital Imaging
Virtual Reality & Advanced Simulations

Advanced Compact Discs (DVD)
Web-Enabled Interactive TV
Personal Digital Assistants with Wireless Voice & Data
Smart Phones with Web Access
High-Definition TV (HDTV)
Voice Recognition & Synthesis
Handwriting Recognition
Noise Cancellation Systems
Biometric Identification Systems
Vertical Educational Portals
Smart Home Networks
Wearable PC
Internet Recording Devices

ECONOMIC FACTORS: TRENDS AND EVENTS AS SEEN BY COMMUNITY LEADERS

ECONOMIC FACTORS: TRENDS AND EVENTS AS SEEN BY COMMUNITY LEADERS

Community leaders were chosen on the basis of their occupation/industry and their knowledge and participation in the broader economic community of the Tri-Cities. They are knowledgeable, well-respected members of our community and their cooperation was very much appreciated. Interviews were conducted by CBC staff at the convenience of those being interviewed, usually at their office, and occurred over a three-month period from November of 1999 through January of 2000. Comments of those interviewed proved extremely interesting and helpful. The comments listed below are categorized by trend type and source; they are based on more than 65 interviews.

Business and Industry

- Agriculture will become increasingly important to the Tri-Cities economy. It's a good news, bad news scenario. It means jobs, but they will be lower paying and require fewer skills.

- Employment will continue to increase. The glass vitrification project has the potential for a huge impact on the Tri-Cities and much depends on whether Congress decides to fund the project and when.

- There will be fewer and fewer [financial] resources available for government agencies – particularly state agencies.

- The demographics of the Tri-Cities will continue to change with an influx of immigrants from Mexico, the former Soviet Union, Bosnia, and Asia. The change from a science/engineering-based to agriculture-based economy will mean a more "working class" environment.

- There will be more spin-off companies from Hanford in the area of science and technology; more small business owners are former Hanford people.

- There is a growing trend for a regional view vs. a Tri-Cities view.

- Issues affecting small business include increases in unemployment insurance and the minimum wage.

- Dam breaching has a devastating potential for agriculture and tourism.

- Tourism industry growth will increase in the areas of wineries, hotels and restaurants.

- There is a need for more airline competition to handle flights from the Tri-Cities to Seattle and the eastern U.S.; it is hoped that the increased competition would make decreases in certain types of fares more likely.

- Tri-Cities has great potential as a retirement community but needs to develop the infrastructure in healthcare, living facilities, and cultural and recreation activities of interest to seniors.

- CBC can provide needed education and training to help a tight labor market in sales management, office management and administrative support.

- The movement of spent fuel from current site to mid-site location and the stabilizing of plutonium in the plutonium finishing plant will continue at a faster rate. This will drive the need for nuclear plant operators and radiation protection technicians.

- British Nuclear Fuels will build the vitrification plant.

- Service applications for information technology could become an industry base in the Tri-Cities.

- HAMMER has the design and flexibility to grow as a training facility, primarily for federal and state organizations, i.e., eastern Washington training facility for police.

- Tri-Cities will continue having a difficult time attracting high tech companies.

- Successful vocational training programs will design programs to specific jobs and employers.

- A shortage of mechanics qualified on heavy equipment will continue to grow as will the need for general maintenance workers (millwrights, electricians) and people who repair equipment with electronic/mechanical components.

- The housing market will continue to grow as the need for housing increases but can be inversely impacted by interest rates.

- The Tri-Cities' retail base will continue to grow, particularly in the area west of Columbia Center.

- The downturn in the agriculture markets will continue to decline unless prices for these commodities (especially apples) rise.

- There continues to be a shortage of skilled workers in computer technology, especially operators, network managers and program and software development people.

- There is a continued need for partnerships with local employers for on-the-job training for vocational students, local unions, and apprenticeship programs.

- There is an increased need for workplace-based training with unique programs for individual contractors or businesses.

- During the construction phases of building the vitrification plant, 2000 new employees will be needed – designers, laborers (skilled and unskilled), welders, and a wide variety of construction positions.

- More support services are needed for entrepreneurs in the Tri-Cities.

- CBC has the potential to become a training industry leader; however, competition will come from other training entities and the companies themselves. Areas of growth potential are: technically supported learning, simulation training, curriculum development, web-based training, and video-based training.

- It will be become increasingly difficult for the Port of Kennewick to develop because of government regulations, including the effects of I-695 and environmental laws.

- Steady and increased growth of 75-100 jobs/year will come from the incubator buildings run by the Port of Kennewick.

- There is a continued shortage of reasonably priced labor. Our highly skilled technical force is already employed at a high wage (Hanford tends to drive up wages).

- There will be fewer resources for public agencies to provide services and to fund those projects that the public expects.

Elected Officials – Federal and State

- There is the potential for a huge monetary impact by water, water rights and water policy issues, particularly for agriculture, food processing, and hydropower that goes beyond the Tri-Cities to the entire northwest.

- More initiatives will be transferred from the federal level back to the states i.e., welfare reform, which could have a huge impact on the states because it is outside the normal model and large amounts of money are involved.

- The climate of the Washington voting public is confrontational and conservative and likely to stay that way for some time.

- Accountability is here to stay.

- Economic growth in the Tri-Cities will remain strong.

- Community colleges need to get the word out about their merits and strengths to the rest of the higher education system, the community and the legislature.

- There is increased need for distance learning capacity for place-bound and time-bound students.

- There is increased need for ESL programs for the growing immigrant population.

- There is increased need for a strengthened articulation agreement with WSU to ease transfers as well as a need to improve course and program consistency among all of the state's public institutions of higher education.

- There is increased need for programs for local entrepreneurs that teach them how to create a tangible and salable product.

- Capital projects for higher education will continue to be funded by the legislature but not much new money will be available.

Elected Officials-Local

- E-commerce will continue to see rapid growth.

- Telecommuting jobs will continue to grow.

- The mayor of Richland sees continued need for the CBC Richland campus.

- There is a continued need for CBC to provide training, particularly in high tech, for companies that relocate to the Tri-Cities.

- Tourism in the Tri-Cities will continue to grow and expand with potential for CBC to pick up athletic tournaments and moderate-sized events as tourism increases in the Tri-Cities.

Health Care

- Health care continues to experience a real shortage in skilled and well-trained medical personnel.

- There is an increased need for ultrasound, respiratory and radiology technicians, especially those who are bilingual.

- There is an increased need for students to be team players and customer service-hospitality oriented.

- Because of the impact of the Balanced Budget Act on Medicare and Medicaid, health care providers are abandoning rural areas and moving to the larger cities.

- There is a need for rural health specialists that work in concert with the hospitals.

- The increasing number of immigrants is greatly affecting the practice of dentistry in the Tri-Cities.

- DSHS reimburses dentists less than the cost of treatment resulting in a large number of under-served clients in Franklin County.

- Dental care will continue to evolve into preventative mode and the need for bilingual dental assistants and hygienists is increasing due to increased need for educating patients.

- The supply of dentists is shrinking so there will be an increased need for dentistry teams (dentists, dental assistants, and hygienists).

- Federal and state regulations continue to place demands on dentistry in part due to AIDS and hepatitis.

- Increased need continues for both professional and support personnel in health care.

- Nuclear medicine, diagnosing and treating various diseases using radioactive isotopes, is the next big opportunity for the Tri-Cities.

- Technology will continue to affect every aspect of health care.

- Because of the lack of reimbursement for health care, cost containment is paramount, which leads in turn to more acutely ill patients in hospitals and sick patients at home being cared for by family members.

- The aging population will put increased demands on all forms of health care.

- There will be more competition between the three area hospitals and also an increased need to support costly non-self-supporting services through cooperation between the three hospitals.

- NLN accreditation for CBC's nursing program continues to be a priority and should be accomplished as quickly as possible.

- Federal dollar support for health care will continue to decline while the regulatory requirements and expectations will continue to increase, i.e., patients rights legislation.

- As in education, health care is seeing increased use of paraprofessionals due to pressure to hold down costs, which means there are fewer RNs caring for more and sicker patients.

- There is an increased need for short-term flexible continuing education for health care professionals.

- Funding at the state-level for health care will continue to decline.

Social Service Agencies

- A need continues for information technology (assistive technology) for employees and clients in Eastern Washington.

- There is increased need for partnering with social service agencies to develop training of various kinds, including time management, communication skills, case management training, use of new technology and social work classes.

- Social service agencies see a need for training targeted to rehabilitation professionals.

- There is a continued need for short-term training programs for social service agency clients.

- There is an increased need for training for limited English proficient clients, specifically pre-employment training.

- Colleges are and will continue to face major competition from community based organizations.

- Social service agencies need training that leads to wage progression for their clients; however, not necessarily academic training.

- More on-site training is needed.

- There is a need for developing a complete package of services for community service office clients.

- There is a need for training social service agency employees in ESL, both because of increased numbers of clients who are limited English proficient and the increased numbers of bilingual/bicultural employees.

- A major impact to social service agencies will be the aging population with increased need for CNA's and RN's, state certification for home care workers, and bilingual training.

- There is an increased need now and in the future for vocational training for eldercare workers.

- Employers are now demanding more than a high school diploma for hiring; they want better-prepared candidates.

- There is an ever- increasing demand for skilled workers in computers and other forms of technology.

- There is increased development of performance accountability measures to meet the demographics of students and community as the Workforce Investment Act is implemented.

School Administrators

- There will be a growing number of students coming to CBC from local high schools.

- K-12 will have to continue to change how, where, and when they teach because of increased numbers of students with accompanying challenges to facilities and services.

- The entire school system in the Tri-Cities has been impacted by changes in demographics with increased numbers of students receiving free lunches in all the school districts.

- There will be a steady increase in the numbers of Hispanics enrolling at CBC.

- Running Start numbers will increase due to a variety of reasons including the need to move students along because of the increased strain on school facilities in the high schools.

- There will be increased use of web based TV and on-line classes in the high schools.

- Competition will increase in K-12 in the form of charter and voucher schools.

- Changing graduation requirements and the Certificate of Mastery will bring more students to CBC sooner.

- An increase in the need for training positions CBC as a valuable partner in economic development in the Tri-Cities.

- K-12 will continue to see great change and will move to more flexibility and a consumer-orientation.

- K-12 will have increased expectations for cutting-edge technology at CBC.

- Career exploration and counseling must become a priority in both K-12 and community colleges.

- Because of the Pathways Program in Pasco, Pasco students arriving at CBC will have had more information about careers and will be more aware of career possibilities for themselves.

- Alternative high schools will expand to meet the needs of a more diverse student population.

- There will an increasing number of home schooled children which negatively impacts K-12 because these students participate in sports and activities but no money comes to the schools for their education.

- There will continue to be diminished federal funds for special needs populations.

- There is a continued need for vocational careers for students and an increased need for recruitment to CBC vocational programs at the high schools.

- There is a continued need for 2+2 programs (programs that connect two years of high school courses to a vocational program at CBC).

- There is continued need for the Tech Prep program where high school students can receive college credit for their high school courses.

Arts in the Tri-Cities

- There is a need in the Tri-Cities for a "communications coordinator" or one source for information about the arts in the Tri-Cities and events planned by those groups.

- Partnering between arts organizations is becoming more common and will continue to be because of funding and other considerations.

- All individuals and groups interviewed indicated there is a consistent lack of rehearsal space in the Tri-Cities for arts groups.

- Money for the arts in the Tri-Cities is not increasing and the organizations are forced to compete for a smaller and smaller piece of the pie.

- More financial aid for the arts is being awarded to the western side of the state than previously.

Literacy in the Tri-Cities

- Refugee demographics are becoming more diversified (45% Bosnians; 22% Russians, 10% Vietnamese; 8% Kosovo/Albanian; 6% Iraquis; 5% Sudanese; 2% Iranian, 2% Burmese).

- Russian and Bosnian refugees will decrease as immigration and family reunification limits tighten.

- There will be more African refugees, with generally less education, and who are often illiterate in their own language.

- There will continue to be an allocation freeze for local refugee "free cases" (defined as having no relatives here) because they are not reaching employment mandates.

- Refugee needs are not being met locally because of the lack of resources.

- CBC needs to continue building on certification programs to meet industry needs.

- More students are realizing they need education beyond high school to compete; they also realize they need a trade or further training.

- Cultural and linguistic diversity continues to present a challenge to our community. A recent demographics study shows that 24 languages are represented in the 11 school districts the Reading Foundation serves; however, the number of students with languages other than Spanish continues to be few.

- There continues to be an increase in the jail population with a wider age difference between inmates (bimodal age differentiation).

- The aging jail population is showing more health issues; these issues are more costly and time-consuming for the jail and impact the allocation of funds for other needs, such as space and education.

- Violent crime is on the increase in the younger aged jail group; it was 18-24 years but is now 13-28 years.

- The jail population is showing lower educational levels with more dual diagnosis (i.e., alcohol and drug addition) inmates.

- There continues to be a lack of appropriate services for the mentally ill, and they continue to end up in the jail.

- There is a need to make it easier for inmates to continue with programs outside the jail. Inmates needs are 50% educational, 25% nurturing and counseling and 25% substance abuse issues.

- There is the opportunity to look into Drug Court to use education to change behavior.

Vocational Program Advisory Committees

Introduction

Vocational Advisory Committees are made up of community members who have an interest in a particular vocational area and are willing to donate their time to help the program with their expertise and connections. They come from a wide variety of professions and are small business owners, personnel at various levels of large institutions, or retirees in a particular field who just want to help in some way.

The Director of Institutional Research met with several vocational program advisory committees within a six month period to learn what trends or events they saw in the next 3-5 year period that could impact the Tri-Cities and/or CBC. Focus group sessions were held at regularly scheduled advisory committee meetings. There were similarities in the information received from these groups to that received from the community leaders but from a slightly different perspective. The highlights from these group meetings follow.

Health Occupations Advisory Committee

- There is a trend for shorter hospital stays with increased acuity.

- The increased cost of health care will continue.

- There is a need for more community-based care.

- There is an increased use of technology in all areas of healthcare.

- There continues to be a nursing shortage.

- There is a Radiologic Tech shortage in the Tri-Cities and nationwide.

- There is an increased use of unlicensed personnel at the bedside.

- There is a higher use of contracted or traveling nurses.

- There is a shift toward more assisted living situations than skilled nursing.

Business Technology Advisory Committee

- There continues to be shortages in the number of health care workers, nurses, and medical records personnel.
- Computer skills are a necessity.
- Online documentation will be complete at area hospitals within 18-24 months.
- More training is needed in medical terminology because secretaries are now ordering tests.
- Because non-professional staff are ordering drugs for patients, there is a need for CBC to offer an anatomy and physiology survey course.
- Government compliance regulations are increasing in all areas of business and healthcare.
- Insurance is changing what it will allow and becoming more expensive.
- Hanford is now using Microsoft Office exclusively.
- Tax planning and investing are becoming more of a priority in CPA firms.
- In CPA firms, there is increased emphasis on larger clients with complicated taxes due to higher costs for smaller, less complicated clients; this will create a shortage of firms willing to do smaller client's taxes.
- The hospitality industry is growing, becoming increasingly computerized, and paperless.
- Multilingual personnel are needed everywhere in the Tri-Cities.
- Irrigation districts are all computerized and experiencing growth due to increased new housing built in the area.

Welding Technology Program Advisory Committee

- There is a continued need for welders, but not necessarily for higher paying union jobs.
- A large number (400-500 or 600-800) of welders are needed for stainless steel welding for the vitrification project; nuclear standards for welding will be required with high quality a necessity.

- The vitrification project is planned to begin within the next 12 to 18 months.
- Jobs for the vitrification plant will not be able to be filled locally due to the large number of workers needed.
- An upgrading of local welders is a necessity in order to help fill the gap of needed workers.
- It will take two years to gear up CBC's welding program to produce the level of welder needed for this work (similar to 1976-80 when 22 instructors taught seven days a week).
- Other CBC programs impacted by the vitrification project would be engineering tech and construction management.
- There will be a large number of smaller companies moving to the area to support the needs of the vitrification project, particularly in welding, engineering, and fabrication.
- Quality assurance and quality control workers will also be needed: one inspector to every 5 welders or 50-100 people will be needed for this work.
- There is room at the Port of Pasco for one more large food processing plant without enlarging the wastewater treatment plant.
- Smaller companies that support the food processing businesses will continue to come to the Pasco area.

Women's Program Advisory Committee

- There is a large need for childcare on the CBC campus.
- There is a need for basic education on the web. Distance learning for GED preparation is currently not being provided by anyone. At this point you can get a Ph.D. on the web, but you can't get basic education.
- The credit load demanded by WorkFirst is too high (6-8 credits) for those who want to continue their education.
- WSU-Tri-Cities also needs childcare services.
- A campus Health Services Office is needed at CBC (especially a place for students to lie down in privacy if they become ill).
- There are an increasing number of young people in the Tri-Cities who have medically related behavioral problems.

- There will be an increased need for vocational programs or skills sets classes for people transitioning from welfare to living wage jobs.

- The six-week courses are too short to adequately train anyone.

- New careers for the elderly will increase as the population ages. Because we are living longer, there is the opportunity to create "Mature Gold" (a new or different career) for those who may have retired but still want to work part or full time.

- The reputation of vocational programs is very important. This becomes more apparent when CBC graduates are competing for jobs with those from private schools, such as the Perry Institute.

- Needs assessments should be done periodically to ensure programs are meeting community needs, particularly in the vocational areas.

- The number of non-English speaking people living in the Tri-Cities will continue to increase.

A FUTURIST'S LOOK AT HIGHER EDUCATION

A FUTURIST'S LOOK AT HIGHER EDUCATION

Introduction

Samuel L. Dunn, Vice President for Academic Affairs and a professor of business and mathematics at Northwest Nazarene University, published a future predictions list for higher education. His list of predictions for higher education, said to occur within the next 25 years, was published in the March-April 2000 issue of The Futurist magazine. Futurists are traditionally conservative and a bit gloomy, but his predictions are included because they look further into the future than the scanning project allowed. These predictions may or may not be realized depending on what we do or don't do to support, correct or combat the predictions. Higher Education can and does make its own future.

Predictions for Higher Education By 2025

- The number of degree-granting institutions will continue to grow, while the number of traditional campuses will decline. By 2025, half of today's existing independent colleges will be closed, merged, or significantly altered in mission.

- University degrees and programs at all levels will be available by information technologies from all quality levels of educational institutions.

- Courseware producers will sell courses and award credits directly to the end user, and thus, through inter-mediation, bypass the institutional middleman.

- There will be two principal types of degree and certificate-granting institutions: value-added and certification institutions.

- The distinction between distance and local education will be blurred. Almost all the courses will be digitally enhanced. There will be a small group of colleges that will carve out a market niche by maintaining "live faculty instruction" in their course delivery.

- Seamless education between high school, undergraduate college and graduate programs will be the norm. Incentives will be given to students and institutions to move students through their programs at a fast rate.

- The home-school movement will lead to a home-college movement.

- The remaining campus-based colleges and universities will increasingly move to responsibility-centered management and will outsource many functions now done by the institution.

- Cities will expect colleges and universities to pay taxes or a "voluntary" equivalent for services rendered by the city.

- The U.S. government will continue to certify institutions for access to student financial aid. By 2010, the number of eligible institutions will jump from about 7,000 at present to more than 10,000.

- Faculty in traditional colleges and universities will revolt against technological delivery of courses and programs and against the emerging expectations for faculty. Unionization and strikes will increase as faculty fight a rear-guard action to try to slow down or stop the inevitable.

- Accreditation and program approval will be based more on educational outcomes. Testing programs will be put in place by discipline organizations, federal and state governments, corporations, and testing companies. Large corporations will develop their own approval systems. By 2025, there will not be one national accreditation system, although the U.S. Department of Education will provide a basic safety net for quality.

- The big growth in adult and post-secondary education will be in degree and certificate programs for older adults. To be viable in the information society, the typical adult will need to take at least 30 semester credits every 10 years.

- By 2005, there will be "killer" courseware applications covering the 25 college courses that enroll 50% of all credits.

- Consortia of colleges, universities, and other kinds of institutions will increasingly band together to produce and deliver courses for students in their member institutions. Many of these consortia will seek their own accreditation and approval.

- The distinctions between and among public and private, for-profit and nonprofit institutions of higher education will largely disappear.

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Population:
Ameristat: Produced, in part, by the Population Reference Bureau.
Popnet: Source for Global Population Information.

Non-governmental:

Committee for Education Funding:
Publications on Federal funding for education.
New Expeditions - Commissioned Papers
White papers on Community College topics, sponsored by an AACC and ACCT sponsored project.
National Center for the Study of Adult Learning & Literacy Reports.

Accountability, outcomes/impacts, and other topics:
ERIC Bibliographies on Community Colleges. Annotated lists of articles on 11 key areas.
National Center for Public Policy and Higher Education. Reports, surveys, policy papers, forecasts.

Environmental Scanning:

University of Georgia Environmental Scanning Project. Records of the elaborate and now-defunct effort.
Auburn Horizon. Auburn University Environmental Scanning effort (defunct).
Environmental Scanning Online Seminar/Handbook. A step-by-step presentation; a more traditional article by the same author, James L. Morrison, may be found here.

Online periodicals:

Yahoo! Education News. Updated daily, with useful related links and key issue coverage.
On the Horizon: Strategic Planning Website for Education. Jossey-Bass online publication.
Technology Source - Vision Archive. Jossey-Bass online publication on Technology and Education; this archive lists articles predicting the future.
Christian Science Monitor. General news, with a special section on Education.

ProQuest Links - Magazine contents, searches, articles:

American Demographics, Issue Index. Monthly magazine on consumer trends.
Discover magazine, Issue Index. General science, including 'Breakthroughs' section.
The Futurist, Issue Index. Trends, forecasts, future studies.
Rolling Stone, Issue Index. American popular culture.
U.S. News and World Report, Issue Index.
Newsweek - 1 month behind (library subscribes).

Community College (AND future OR trend OR forecast):

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